

Horticultural Sciences Certificate

The 31-credit-hour certificate granted by Johnson County Community College is a program designed to prepare students for entry into the rapidly advancing, diverse horticultural industry. The coursework provides a solid science foundation for the propagation, production, and managing of plants, both food and essential, in controlled environments and the field. The curriculum is designed to provide students with an invaluable hands-on learning experience. Upon completion of this certificate, students will possess the knowledge and skills to be successful at entry-level or higher positions in most specializations within Horticulture, including crop production, nursery management, landscape maintenance, golf course management, private and public gardens management, garden center operations, wholesale greenhouse growing, greenhouse operations and other related occupations.

The Horticultural Sciences Certificate can be completed in one year through a combination of face-to-face, hybrid, and online classes. It is also stackable with the AAS Horticultural Sciences degree (<https://catalog.jccc.edu/archives/2025-26/degrecertificates/horticulture/horticultural-sciences-aas/>).

(Major Code 6180; CIP Code 01.0601)

Horticultural Sciences Program web page (<http://www.jccc.edu/academics/credit/horticultural-sciences/>)

Program Learning Outcomes

Johnson County Community College (JCCC) is committed to offering high-quality affordable programs that focus on developing knowledge and skills conducive to life-long learning. Both the General Education Student Learning Outcomes (<https://www.jccc.edu/about/leadership-governance/administration/institutional-effectiveness-branch/outcomes-assessment/learning-outcomes.html>) and Institutional Learning Outcomes (<https://www.jccc.edu/about/leadership-governance/administration/institutional-effectiveness-branch/outcomes-assessment/institutional-learning-outcomes.html>) convey JCCC's approach to programmatic outcomes. Additionally, students who successfully complete the Horticultural Sciences Certificate from JCCC will be able to:

- Manage soil and turf on large or small grounds.
- Identify and know the characteristics and requirements of evergreen plants, woody deciduous plants, herbaceous perennials, bulbs, ground covers, vines, and annuals.
- Diagnose and treat plant diseases and nutrient deficiencies.
- Take the Kansas or Missouri licensing examination to become a certified applicator of restricted horticultural pesticides and herbicides.
- Use seed sowing, cutting, and grafting skills for plant propagation.
- Use pruning, fertilization, irrigation, and pest and weed control techniques to maintain a landscape.

Certificate Requirements

Fall Semester

Code	Title	Hours
HORT 140	Turfgrass I	3
HORT 201	Introduction to Horticultural Science	4
HORT 214	Woody Plants, Deciduous	3
HORT 220	Herbaceous Plants	3
HORT 235	Landscape Maintenance and Techniques	3
Total Hours		16

Spring Semester

Code	Title	Hours
Program Elective (see below)		3
HORT 205	Plant Propagation*	3
HORT 215	Woody Plants, Evergreens	3
HORT 225	Plant Problems*	3
HORT 255	Pest Management	3
Total Hours		15



Total Program Hours: 31

Program Electives

Code	Title	Hours
HORT 115	Home Horticulture	2
HORT 135	Landscape Design	3
HORT 150	Fruits, Vegetables and Herb Crops	2
HORT 165	Arboriculture	3
HORT 240	Turfgrass II*	3
HORT 260	Horticulture Soils	3
HORT 265	Landscape Construction	3
HORT 270	Horticulture Internship*	3

* This course has registration requirements.